

AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for preparing a supported cocatalyst for olefin polymerization, which comprises first reacting
 - A) support bearing functional groups, with
 - B) triethylaluminum, thereby producing a reaction product; and subsequently reacting the reaction product with
 - C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl, C₇-C₄₀-haloalkylaryl or an OSiR₃²OSiR₃²group, where

R^2 are identical or different and are each hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl;

y is 1 or 2; and

x is 3 minus y.

2. (canceled).

3. (previously presented) The process as claimed in claim 1, wherein A in formula (I) is boron.
4. (previously presented) The process as claimed in claim 3, wherein R¹ in formula (I) is C₆-C₁₀-haloaryl, C₇-C₂₀-alkylaryl or C₇-C₂₀-haloalkylaryl.
5. (currently amended) A supported cocatalyst obtained by a process comprising first reacting

- A) support bearing functional groups, with
- B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
- C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R¹ are identical or different and are each, independently of one another, hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl, C₇-C₄₀-haloalkylaryl or an OSiR₃²OSiR₃² group, where

R² are identical or different and are each hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl;

y is 1 or 2; and

x is 3 minus y.

6. (currently amended) A process comprising preparing a catalyst system for the polymerization of olefins with a supported cocatalyst, the supported cocatalyst being prepared by

first reacting

- A) support bearing functional groups, with
- B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
- C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl, C₇-C₄₀-haloalkylaryl or an OSiR₃²OSiR₃² group, where

R^2 are identical or different and are each hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl;

y is 1 or 2; and

x is 3 minus y

and then bringing the supported cocatalyst into contact with

- D) at least one organic transition metal compound.

7. (currently amended) A catalyst system for the polymerization of olefins, obtained by bringing at least one supported cocatalyst obtained by a process comprising first reacting

- A) support bearing functional groups, with
- B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
- C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl, C₇-C₄₀-haloalkylaryl or an OSiR₃²OSiR₃² group, where

R^2 are identical or different and are each hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl;

y is 1 or 2; and

x is 3 minus y

into contact with

- D) at least one organic transition metal compound.
8. (previously presented) The catalyst system for the polymerization of olefins as claimed in claim 7, wherein
- E) at least one organometallic compound

is additionally added in its preparation.

9. (previously presented) The catalyst system for the polymerization of olefins as claimed in claim 8 which is prepared by:

firstly preparing a catalyst solid by bringing the at least one supported cocatalyst into contact with the at least one organic transition metal compound D), then

- bringing the catalyst solid into contact with the at least one organometallic compound E) in a second step, thereby forming a mixture, and then using the mixture without further work-up for the polymerization.

10. (previously presented) A process comprising polymerizing olefins with a catalyst system obtained by bringing at least one supported cocatalyst obtained by a process comprising first reacting

- A) support bearing functional groups, with
- B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
- C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl, C₇-C₄₀-haloalkylaryl or an OSiR₃² group, where

R^2 are identical or different and are each hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl;

y is 1 or 2; and

x is 3 minus y

into contact with

D) at least one organic transition metal compound.